

CLAIMS

WHAT IS CLAIMED IS:

1. A process for forming a drag reducing agent, the process comprising:
 - contacting an alpha olefin monomer with at least one catalyst in a reactant mixture;
 - polymerizing the alpha olefin monomer, wherein during the polymerization at least a portion of the alpha olefin monomer polymerize in the reactant mixture to provide an ultra-high molecular weight polyalphaolefin having a polyalphaolefin weight; and
 - contacting the ultra-high molecular weight polyalphaolefin with at least one water insoluble alcohol for a period of time and at a temperature sufficient to form an alcohol absorbed polyalphaolefin having an alcohol absorbed polyalphaolefin weight that is at least 0.5% greater than the polyalphaolefin weight.
2. The process of claim 1, wherein the at least one alcohol is selected from the group consisting of 1-pentanol, 1-hexanol, 1-heptanol, n-octyl alcohol, n-nonyl alcohol, 1-decanol, and mixtures thereof.
3. The process of claim 2, wherein the period of time is at least one hour and the temperature is at least 20°C.

4. The process of claim 2, wherein the period of time is at least seven days and the temperature is at least 20°C.
5. The process of claim 2, wherein the period of time is at least twenty eight days and the temperature is at least 20°C.
6. The process of claim 1, wherein the at least one alcohol is 1-pentanol.
7. The process of claim 1, wherein the at least one alcohol is 1-hexanol.
8. The process of claim 1, wherein the at least one alcohol is 1-heptanol.
9. The process of claim 1, wherein the at least one alcohol is n-octyl alcohol.
10. The process of claim 1, wherein the at least one alcohol is n-nonyl alcohol.
11. The process of claim 1, wherein the at least one alcohol is 1-decanol.
12. A drag reducing agent comprising an alcohol absorbed polyalphaolefin, the alcohol absorbed polyalphaolefin including a polyalphaolefin having a polyalphaolefin weight and a water insoluble alcohol, wherein the alcohol absorbed polyalphaolefin includes an alcohol absorbed polyalphaolefin weight that is at least 0.5% greater than the polyalphaolefin weight.

13. The drag reducing agent of claim 12, wherein the at least one alcohol is selected from the group consisting of 1-pentanol, 1-hexanol, 1-heptanol, n-octyl alcohol, n-nonyl alcohol, 1-decanol, and mixtures thereof.

14. The drag reducing agent of claim 12, wherein the at least one alcohol is 1-pentanol.

15. The drag reducing agent of claim 12, wherein the at least one alcohol is 1-hexanol.

16. The drag reducing agent of claim 1, wherein the at least one alcohol is 1-heptanol.

17. The drag reducing agent of claim 12, wherein the at least one alcohol is n-octyl alcohol.

18. The drag reducing agent of claim 12, wherein the at least one alcohol is n-nonyl alcohol.

19. The drag reducing agent of claim 12, wherein the at least one alcohol is 1-decanol.

1 20. A process for reducing drag in a conduit, comprising:

2 forming a drag reducing agent comprising an alcohol absorbed polyalphaolefin, wherein the
3 alcohol absorbed polyalphaolefin is formed by

4 contacting an alpha olefin monomer with at least one catalyst in a reactant mixture,

5 polymerizing the alpha olefin monomer, wherein during the polymerization at least
6 a portion of the alpha olefin monomer polymerize in the reactant mixture to provide an ultra-high
7 molecular weight polyalphaolefin having a polyalphaolefin weight, and
8 contacting the ultra-high molecular weight polyalphaolefin with at least one water
9 insoluble alcohol to form an alcohol absorbed polyalphaolefin having an alcohol absorbed
10 polyalphaolefin weight that is at least 0.5% greater than the polyalphaolefin weight; and
11 introducing the alcohol absorbed polyalphaolefin into the conduit.